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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Charles M. Milliren

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EXAMINER

VO, HAI

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,247

Applicant(s)

MILLIREN ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ **Responsive to** communication(s) filed on 30 September 2006.

2a) ☒ This action is **FINAL**.

2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1,4-6, 11, 13, 16-24, and 27-29 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1,4-6, 11, 13, 16-24, and 27-29 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

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1. The art rejections based on Donzis (US 4,513,449) have been withdrawn in view of Applicants' arguments (see the paragraph bridging pages 7 and 8 of the amendment filed 09/30/2006).
2. The art rejections based on Krent et al (US 5,423,087) in view of the present amendment. Krent does not teach a body protective device wherein the cap layer has a plurality of vent holes provided therein at a location where the skin overlies the foam substrate. Applicants argue that Ken does not teach the vent holes providing fluid communication between the ambient temperature and a portion of the surface of the foam substrate that is located proximate the vent holes. The examiner respectfully disagrees. Applicants' attention is directed to figure 8 wherein the vents 24 providing fluid communication between the ambient temperature and a side edges of the foam substrate 32 that is located proximate the vent holes.
3. The claim objections and 112 claim rejections are considered moot in view of the present amendment and cancellation of the claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4-6, 16, 17, and 19-24 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ewing et al (US 6,425,141). Ewing teaches a protective helmet comprising a rigid outer shell and three energy-absorbing layers of CONFOR™ open celled polyurethane foams (figure 1, abstract). The first layer adjacent to the rigid outer shell is a Confor 40 foam and the middle layer is a Confor 47 which is a viscoelastic foam used by Applicants (paragraph 34 of the present specification). The outer shell has a plurality of vents 32, 34 as shown in figure 1. The vents do not extend through the foam layer (column 5, lines 58-60). The shell is made of copolyester plastic (column 5, lines 23-25). Ewing uses the same viscoelastic foam as Applicants and both products serve the same purposes, namely a protective helmet; therefore, it is not seen that the foam of Ewing could have performed differently than the claimed viscoelastic foam in terms of the energy absorptive properties, the shape recovery following deformation from a high speed impact.

Ewing does not specifically disclose how a rigid outer shell is attached to a foam substrate. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the article of Ewing is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Ewing. Accordingly, Ewing anticipates or strongly suggests the claimed subject matter.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ewing et al (US 6,425,141) as applied to claim 1 above, further in view of Krent et al (US 5,423,087). Ewing does not specifically disclose a knee pad comprising

an outer shell is molded or integrally bonded to the foam substrate. Krent teaches a body protective device comprising a foam substrate and a cap layer of a thermoplastic material at least partially enclosing the foam substrate (figures 8 and 9). The cap layer is attached to the foam substrate by molding (column 7, lines 55-65, and column 10, lines 7-20). Figures 8 and 9 show that the cap layer and the substrate are attached to each other to form into one piece. Likewise, the cap layer is formed integrally with the foam substrate. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a knee pad wherein an outer shell is either integrally formed with or molded to a foam substrate as disclosed by Krent because such an attachment is obvious and known in the art and Krent provides necessary details to practice the invention of Ewing.

8. Claims 11, 13, 18, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ewing et al (US 6,425,141) as applied to claim 1 above, further in view of FR 2 717 659. Ewing does not specifically disclose the rigid outer shell having a first zone and a second zone, each having a plurality of vent holes provided therein, the portion of the outer shell is more rigid adjacent the first zone than that adjacent the second zone by virtue of the relative size and/or density of vent holes provided in the first zone compared to in the second zone. FR '659, however, teaches a protective helmet wherein an outer shell has a first zone and a second zone, each having a plurality of vent holes provided therein, the portion of the outer shell is more rigid adjacent the first zone than that

adjacent the second zone by virtue of the relative size and/or density of vent holes provided in the first zone compared to in the second zone (see figure 1). FR '659 discloses the outer shell is seamless. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a protective helmet wherein an outer shell having a first zone and a second zone, each having a plurality of vent holes provided therein, the portion of the outer shell is more rigid adjacent the first zone than that adjacent the second zone by virtue of the relative size and/or density of vent holes provided in the first zone compared to in the second zone motivated by the desire to allow air circulation.

9. Claims 1, 4-6, 16, and 19-24 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over DuDonis et al (US 6,634,045). DuDonis teaches a heel elevator support comprising a viscoelastic polyurethane foam substrate and a skin layer enclosing the foam substrate wherein the skin layer has a plurality of vent holes as shown in figure 20 (column 11, lines 10-15). The foam has a density of from 1.2 to 4.6 pcf, within the claimed range (column 11, lines 19-20). The skin is a clear elastomer film (claim 15). DuDonis teaches the support compressed to not more than 15% of its freely expanded volume, the rolled compressed support inserted into and enclosed by the elongated flexible tubular casing (claim 21). Likewise, the foam should be flexible so as to enable the support being rolled and inserted into the casing. DuDonis uses the same viscoelastic foam as Applicants, i.e., flexible,

density within the claimed range; therefore, it is not seen that the foam of DuDonis could have performed differently than the claimed viscoelastic foam in terms of the energy absorptive properties, the shape recovery following deformation from a high speed impact.

DuDonis does not specifically disclose how a cover is attached to a foam substrate. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the article of DuDonis is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative

Examples are commensurate in scope with DuDonis. Accordingly, DuDonis anticipates or strongly suggests the claimed subject matter.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

Hai Vo

**HAIVO
PRIMARY EXAMINER**